TDS/#4 6.7.02 272/015 Patent

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:) Previous Group Art Unit No. 1642
GORDON MILLS et al.) Previous Examiner: Karen A. Canella
Serial No.: Not Yet Assigned)
Filed: Herewith)
For: METHOD FOR DETECTING CANCER ASSOCIATED WITH ELEVATED LEVELS OF LYSOPHOSPHOLIPIDS)))))

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents Washington, D.C. 20231

Sir:

In accordance with 37 CFR §§ 1.97 and 1.98, the items identified in this Information Disclosure Statement ("IDS") are brought to the attention of the Office. The items are listed on the attached form PTO-1449 and copies are enclosed for the convenience of the Examiner.

The items identified in this IDS may or may not be "material" pursuant to 37 CFR § 1.56. The submission thereof by Applicant is not to be construed as an admission that any such patent, publication or other information referred to therein is material or considered to be material (37 CFR § 1.97(h)), or even qualifies as "prior art" under 35 USC § 102 with respect to this invention unless specifically designated by Applicant as such.

OC-104722.1

CERTIFICATE OF MAILING (37 C.F.R. §1.10)

I hereby certify that this paper (along with any referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as 'Express Mail Post Office To Addressee' in an envelope addressed to the Commissioner for Patents, Washington, D.C. 20231.

EV 051628979 US	Lynne Fulmer
Express Mail Label No.	Name of Person Mailing Paper
•	Jan and Milanda
February 26, 2002	tynu dumen
Date of Deposit	Signature of Person Mailing Paper0

Information Disclosure Statement Filing Provision:

\boxtimes	This ID	OS is believed to be timely in that it is being submitted under 37 CFR § 1.97(b), that is (1)					
		onths of the filing date of the application, which is a continuation of co-pending					
applica	application Serial No. 08/822,128 filed on March 21, 1997, no copies of the cited references are included						
as they	were su	abmitted in the prior application Serial No. 08/822,128 filed on March 21, 1997 or (2)					
within	three mo	onths of entry of the national stage as set forth in 37 CFR § 1.491; or (3) before the					
mailing	g of a fir	st Office action on the merits; or (4) before the mailing of a first Office action after filing					
a reque	est for co	ontinued examination under § 1.114. Thus, no fee is required.					
		However, if the undersigned is in error in this regard, Applicant respectfully requests that the Office consider this IDS as filed under 37 CFR § 1.97(c), if applicable, and charge the fee due under 37 CFR §1.17(p) to the deposit account referenced below.					
		However, if the undersigned is in error in this regard, Applicant respectfully requests that the Office consider this IDS as filed under 37 CFR § 1.97(c), if applicable, and a statement under 37 CFR § 1.97(e) is included below, thus no fee is required.					
on the § 1.311	merits, b	OS is being submitted under 37 CFR § 1.97(c), that is after mailing of a first Office action out before a Final Action under 37 CFR § 1.113 or a Notice of Allowance under 37 CFR					
		The fee due under 37 CFR § 1.17(p) is submitted herewith.					
		A statement under 37 CFR § 1.97(e) is included below, thus no fee is required. In the event that this IDS is not received before a Final Action or a Notice of Allowance, then Applicant respectfully requests that the Office consider the filing of these papers to be submitted under 37 CFR § 1.97(d) and charge the fee due under 37 CFR § 1.17(p) to the deposit account below.					
	This ID	OS is being submitted under 37 CFR § 1.97(d), that is after a Final Action under 37 CFR					
§ 1.113	or a No	otice of Allowance under 37 CFR § 1.311, but before payment of the issue fee. A					
stateme herewi		r 37 CFR § 1.97(e) is included below. The fee due under 37 CFR § 1.17(p) is submitted					
		STATEMENT UNDER 37 CFR § 1.97(e):					
	Each it	em contained in this IDS was first cited in any communication from a foreign patent office					
in a co	unterpar	t foreign application not more than three months prior to the filing of this IDS.					
	No iten	n contained in this IDS was cited in a communication from a foreign patent office in a					
counter	rpart for	eign application, and, to the knowledge of the person signing this statement after making					
reason	able inqu	airy, no item of information contained in this IDS was known to any individual designated					
in 37 C	-	56(c) more than three months prior to the filing of this IDS.					

PAYMENT AND/OR AUTHORIZATION TO CHARGE FEES:

A check in the amount of is enclosed:	for the above fee(s).
Please charge to Deposit Account No. 12-2	475 for the above fee(s).
The Commissioner is authorized to charge any fees r	equired by the filing of these papers, and to credit
any overpayment to Lyon & Lyon's Deposit Accoun	t No. 12-2475 .
Dated: February 26, 2002	Respectfully submitted, LYON & LYON LLP By: Kart T. Mulville Reg. No. 37,194



LYON & LYON LLP 633 W. Fifth Street, Suite 4700 Los Angeles, CA 90071 949/567-2300 X 1124 Tel. 213/955-0440 Fax

FORM PTO-1449



LIST OF PATENTS AND OTHER ITEMS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT

(Use several sheets if necessary)

ATTY. DOCKE 272/015

SERIAL NO.

Not Yet Assigned

APPLICANT:

Herewith

GORDON B. MILLS et al.

FILING DATE:

PREVIOUS GROUP:

1642

		U.S.	PATENT DOCUMENTS			
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
	4,693,971	9/15/87	Misaki			2 =
	4,698,299	10/6/87	Janoff et al.			8.979 9.79
	5,122,454	6/16/92	Ueda et al.			08.
	5,277,917	1/11/94	Xu et al.			76.97 10.00
	5,326,690	7/5/94	Xu et al.			
	5,489,580	2/6/96	Markiyannis et al.			
	5,824,555		Xu et al.			

		FOREIG	IN PATENT DOCUMENTS					
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANS YES	LATION NO	
	210 691	3/31/07	German					
	882 048	9/4/80	Belgium					
	63-13644	1/20/88	Japan					
	WO 89/01773	3/9/89	PCT					
	EP O 322 262	6/28/89	EPO					
	2-107195	4/19/90	Japan					
	WO 90/10448	9/20/90	PCT					
	WO 93/11136	6/10/93	PCT					
	8-53475	2/27/96	Japan					
	WO 97/45727		PCT					
	WO 01/38870 AQ		PCT					

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1642

(Use several sheets if necessary)

	OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)
177	Asaoka et al., (1992) "Role of lysophosphatidlycholine in T-lymphocyte activation: Involvement of phospholipase A ₂ in signal transduction through protein kinase C," Proc. Natl Acad. Sci. USA 89:6447-6451
	Bligh and Dyer, (1950) "A rapid method of total lipid extraction and purification," Can. J. Biochem. Physiol. 37(8):911-917
	Domansky, V. (1992) "Functional condition and phospholipid profile of red blood cells in breast cancer patients," Vopr. Onkol. 38(10):1194—1202 (English and Russian translations previously provided)
	Dorum et al. (1996) "Early detection of familial ovarian cancer," E. J. Cancer 32A(10):1645-1651
	Einhorn et al., (1992) "Prospective evaluation of serum CA 125 levels for early detection of ovarian cancer," Obstet, Gynecol. 80(1):14-18
	Fukami et al., (1988), "Antibody to phosphatidylinositol 4,5-biphosphate inhibits oncogene-induced mitogenesis," Proc. Nat'l Acad. Sci. USA 85:9057-9061
	Gaudette et al. (1993), "Mass and fatty acid composition of the 3-phosphorylatd phosphatidylinositol bisphosphate isomer in stimulated human platelets," J. Biol. Chem. 268(19): 13773-13776
	Gillet et al (1975), "Plasma concentrations of lysolecithin and other phospholipids in the healthy population and in men suffering from atherosclerotic diseases" Atherosclerosis 22:111-124
	Jacobs et al (1988), "Multimodal approach to screening for ovarian cancer," Lancet Feb. 6, 1988 Vol 268-271
	Jacobs et al (1996), "Risk of diagnosis of ovarian cancer after raised serum CA 125 concentration: a prospective cohort study," BMJ 313:1355-1358
	Jalink et al (1994), "Growth factor-like effects of lysophosphatidic acid, a novel lipid mediator," Biochim. Biophys. Acta 1198:185-1976
	Kalnova (1989), "Relationship between antioxidant activity and lipid profile of blood as marker of the effect of tumor on the host," Vopr. Onkol. 35(7):785-801 (English and Russian translations provided)
	Keating et al (1996), "Inhibition of protein synthesis in frog (Xenopus Laevis) egg extracts by an antibody against phosphatidylinositol 4,5-bisphosphate," Biochem J. 317(3):643-646
	Kriat et al (1993), "Analysis of plasma lipids by NMR spectroscopy: Application to modifications induced by malignant tumors," J. Lipid Res. 34:1009-1019
	Kume and Gimbrone (1994), "Lysophosphatidylcholine transcriptionally induces growth factor gene expression in cultured human endothelial cells," J. Clin. Invest. 93:907-911
	Matuoka et al (1988), "Mitogenesis in response to PDGF and bombesin abolished by microinjection of antibody to PIP ₂ ," Science 239:640-643
	Mills et al (1988), "A putative new growth factor in ascitic fluid from ovarian cancer patients: Identification; characterization, and mechanism of action," Cancer Research 48:1066-1071
	Mills et al (1990), "Ascitic fluid from human ovarian cancer patients contains growth factors necessary for intraperitoneal growth of human ovarian adenocarcinoma cells,": J. Clin. Invest. 86:851-855
	Moolenaar (1995), "Lysophosphatidic acid signalling," Current Opinion in Cell. Biol. 7:203-210
	Moolenaar (1992), "Lysophosphatidic acid: A bioactive phospholipid with growth factor-like properties," Rev. Physiol. Biochem. Pharamcol. 119:47-65
	Muto et al (1993), "Screening for Ovarian Cancer: The preliminary experience of a familial ovarian cancer center," Gynecologic Oncol. 51:12-20
	Nakano et al (1994), "Lysophosphatidylcholine upregulates the level of heparin-binding epidermal growth factor-like growth factor mRNA in human monocytes," Proc. Natl Acad. Sci USA 91:1069-1073

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Okita, Misako, "Abnormality in plasma lysophosphtidic [sic] acid of ovarian cancer patients," Dept. of Nutritional Sci., Okayama Prefectural Univ., March 31, 1995, pp. 29-35 (Japanese and English translation previously provided)
Okita et al (1997), "Elevated levels and altered fatty acid composition of plasma lysophosphatidylcholine (LYSOPC) in ovarian cancer patients," Int. J. Cancer 71:31-34
Phillips et al (1967), "Composition of phospholipids and of phospholipid fatty acids of human plasma," J. Lipid Res. 8:676-681
Ross (1993) "The pathogenesis of atherosclerosis" A perspective for the 1990s," Nature (London) 362:801-809
Sasaki et al (1993) "Potentiation of diacylglycerol-induced activation of protein kinase C by lysophospholipids," FEBS Letters 320(1):47-51
Schapira et al (1993), "The effectiveness of ovarian cancer screening: A decision analysis model," Ann. Intern. Med. 118(11):838-843
Shen et al. (1997), "Evaluation of lysophosphatidic acid (LPA) as a diagnostic marker for ovarian cancer and other gynecological cancers," Clinical Chemistry 43(6):S230
Skeaff et al (1987); "Effect of dietary fish oil containing eicosapentaenoic acid on the fatty acid composition of platelet phospholipids and on the thrombin-stimulated phospholipid alterations in human platelets," Collogue INSERM 152:63-76
Skipski et al (1967), "Lipid composition of human serum lipoproteins," Biochem J. 104:340-352
Steinberg et al (1989), "Beyond cholesterol: Modifications of low-density lipoprotein that increase its atherogenicity," N. Eng. J. Med. 320(14):915-924
Thomas et al (1991), "Eicosanoid-dependent and –independent formation of individual [14C]stearoyl-labeled lysophospholipids in collagen-stimulated human platelets," Biochim. Biophys. Acta 1081:92-98
Tokumura et al (1986), "Involvement of lysophospholipase D in the production of lysophosphatidic acid in rat plasma," Biochim Biophys. Acta 875:31-38
Xu et al (1995), "Lysophospholipids activate ovarian and breast cancer cells," Biochem J. 309:933-940
Xu et al (1995), "Characterization of an ovarian cancer activating factor in ascites from ovarian cancer patients," Clin. Cancer Res. 1:1223-1232
Xu et al (1995) "Effect of Lysophospholipids on Signaling in the Human Jurkat T Cell Line," J. Cell Physiol 163:441-450
Yoshida et al (1992), "Platelet activation by simultaneous actions of diacylglycerol and unsaturated fatty acids," Proc. Natl. Acad. Sci. USA 89:6443-6446

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